

RESPONSE

Serial Number: 09/703,269

Filing Date: October 31, 2000

Title: CURVATURE BASED METHOD FOR SELECTING FEATURES FROM AN ELECTROPHYSIOLOGIC SIGNALS FOR PURPOSE OF COMPLEX IDENTIFICATION AND CLASSIFICATION

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REMARKS

In response to the Office Action dated November 29, 2002, claims 1 - 40 are now pending in this application. Detailed responses to the rejections are as follows:

Information Disclosure Statement

Applicant would like to bring to the Examiner's attention that not all the references cited on the returned Form 1449, previously submitted with the Information Disclosure Statement on September 20, 2002, were initialled by the Examiner as having been considered. Specifically, the cited reference "PCT International Search Report" was not initialled. Applicant respectfully requests that the Form 1449 be returned with the next official communication, with all listed references initialled as having been considered. A duplicate copy of the cover letter and Form 1449, dated September 20, 2002, is enclosed herewith for the Examiner's convenience.

Rejections Under 35 U.S.C. § 103

In the Office Action, claims 1 - 40 were rejected under 35 U.S.C. § 103(a) as being unpatentable over either patent to "Williams" (U.S. Patent No. 6,266,554 or WO 00/47278).

Applicant respectfully traverses the rejection on procedural and substantive grounds as follows:

Applicant respectfully submits that the rejection is procedurally defective in that it rejects the application based upon "Williams." Applicant respectfully submits that the cited U.S. patent is to William Hsu. Clarification is requested in the next official communication.

Applicant respectfully submits that the rejection is also procedurally deficient in that it concludes with the following assertion without supporting the assertion by citing at least a portion of the reference: that "Either patent to Williams et al teaches the curvature computations, mean square error calculations, the analyzer, the comparator or comparison circuit, template generator, controller, threshold values, pacing electrical pulse energy, identifying and aligning features, memory to store extracted features and electrode(s) disposed in or around the heart." Applicant is unable to find the claimed subject matter from the present rejection. Clarification of the rejection is respectfully requested in the next official communication.

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Claim 1

Applicant also respectfully traverses the rejection for substantively failing to support the assertion that it is "obvious to one of ordinary skill in the art, at the time the invention was made that the claimed computing curvatures at sample points is obvious in view of the threshold value or detection criterion." The assertion is respectfully traversed on several grounds.

The rejection is respectfully traversed because it is respectfully submitted that the rejection fails to appreciate that the computation of curvature requires additional processing, involves different outputs, and supplies different comparison morphologies. For example, claim 1 recites, among other things, computing curvatures at sample points and extracting features from the computed curvatures. It is respectfully submitted that the rejection fails to provide the requisite motivation or suggestion of the foregoing.

Pursuant to M.P.E.P. 2144.03, Applicant respectfully requests a reference supporting the assertion of things "obvious" or "well known in the art," or withdrawal of such assertions in the next official communication.

Applicant respectfully requests reconsideration of the obviousness rejections and allowance of claim 1.

Claims 2-22

Applicant believes that dependent claims 2-22 are patentable at least for the reasons provided above for claim 1. Further discussion of these claims is deferred until such time as the rejections are clarified. Reconsideration and allowance of claims 2-22 are respectfully requested.

Claim 23

Applicant respectfully traverses the rejection of claim 23 and repeats the procedural traversals stated above. Substantively, applicant respectfully submits that the rejection fails to provide, among other things, how the cited reference provides an analyzer to compute curvatures at sample points and a comparator, as recited in claim 23. Clarification of the rejection (or its withdrawal) in the next official action is respectfully requested. Reconsideration and allowance of claim 23 are respectfully requested.

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Claims 24-40

Dependent claims 24-40 are believed patentable for at least the reasons provided for claim 23 above. Further discussion of the dependent claims is deferred pending clarification of the rejections as requested. Reconsideration and allowance of claims 24-40 are respectfully requested.

Concerning All Claims

Applicant expressly reserves the right to swear behind the cited references at a later date, but prefers to defer such action until such time as the rejections are clarified in the next official communication. Applicant respectfully requests that any subsequent action be non-final so that Applicant may address the rejections as clarified.

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CONCLUSION

Applicant respectfully requests reconsideration and allowance of claims 1 - 40 and notification to that effect is earnestly requested. The Examiner is invited to telephone Applicant's attorney (612 373-6912) to facilitate prosecution of this application.

If necessary, please charge any additional fees or credit overpayment to Deposit Account No. 19-0743.

Respectfully submitted,

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Date

Mar. 31, 2003

By

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CERTIFICATE UNDER 37 CFR 1.8: The undersigned hereby certifies that this correspondence is being deposited with the United States Postal Service with sufficient postage as first class mail, in an envelope addressed to: Commissioner of Patents, Washington, D.C. 20231, on this 31st day of March, 2003.

Name

GREG HANSON

Signature

[Signature]